ENERGY STAR® Unit Shipment and Market Penetration Report Calendar Year 2013 Summary

This is the twelfth year in which EPA has collected unit shipment data for the ENERGY STAR Program from partners and/or their representative associations and used it to project the market penetration of ENERGY STAR certified products.

Data:

For 2013, data was collected for the following ENERGY STAR certified products:

- Audio/Video
- Boilers
- Ceiling Fans
- Central Air Conditioners and Air-Source Heat Pumps (CAC/ASHP)
- Clothes Washers
- Commercial Dishwashers
- Commercial Fryers
- Commercial Griddles
- Commercial Hot Food Holding Cabinets
- Commercial Ice Machines
- Commercial Ovens
- Commercial Refrigerators and Freezers
- Commercial Steam Cookers
- Computer Servers
- Computers
- Decorative Light Strings (DLS)
- Dehumidifiers
- Dishwashers
- Displays
- Furnaces
- Geothermal Heat Pumps
- Imaging Equipment
- Lamps
- Light Commercial HVAC
- Luminaires
- Refrigerators and Freezers
- Roof Products
- Room Air Cleaners
- Room Air Conditioners
- Set-top Box Service Providers
- Set-top Boxes
- Telephony
- Televisions
- Uninterruptible Power Supplies
- Vending Machines
- Ventilating Fans
- Water Coolers
- Water Heaters

Methodology:

ENERGY STAR market penetrations for a given year are derived by dividing U.S. ENERGY STAR certified product shipments by total U.S. shipments.

U.S. ENERGY STAR Shipment Data

> ENERGY STAR shipment data is collected from program partners for each calendar year. EPA uses this data as the representative value of all ENERGY STAR certified product shipments for the respective year; that is, no adjustments are made to the totals to account for partners that fail to report their shipments. Using the reported data represents a conservative approach. Though this method may underestimate ENERGY STAR market penetration, the data are reliable and the method is easily replicated. Further, response rates for all collected product categories average approximately 90%, suggesting that reported shipments closely approximate actual ENERGY STAR certified product shipments.

U.S. Shipment Data

> U.S. shipments are based on modeled and documented data. Industry data is used as a direct input whenever available and compared to forecast assumptions to ensure data comparability. Industry sources include trade associations, publications, and commercially available market research.

Response Rate:

Percent of Partners that Submitted CY2013 Unit Shipment Data:

Product Category	Response Rate (%)	Number of Partners Required to Respond
Audio/Video	94%	33
Boilers	98%	51
Ceiling Fans	89%	46
Central ACs and Air-Source Heat Pumps	100%	35
Clothes Washers	95%	19
Commercial Dishwashers	100%	20
Commercial Fryers	100%	9
Commercial Griddles	100%	9
Commercial Hot Food Holding Cabinets	100%	10
Commercial Ice Machines	100%	10
Commercial Ovens	94%	17
Commercial Refrigerators and Freezers	91%	47
Commercial Steam Cookers	100%	9
Computer Servers	100%	17
Computers	78%	108
Decorative Light Strings	72%	39
Dehumidifiers	96%	24
Dishwashers	100%	17
Displays	82%	66
Furnaces	100%	16
Geothermal Heat Pumps	100%	30
Imaging Equipment	95%	82
Lamps	84%	300
Light Commercial HVAC	100%	9
Luminaires	91%	217
Refrigerators and Freezers	100%	49
Roof Products	96%	225
Room Air Cleaners	93%	29
Room Air Conditioners	86%	22
Set-top Box Service Providers	83%	6
Set-top Boxes Brand Owners	93%	15
Telephony	85%	13
Televisions	79%	56
Uninterruptible Power Supplies	100%	13
Vending Machines	100%	8
Ventilating Fans	88%	41
Water Coolers	81%	31
Water Heaters	79%	42
Total	90%	1790

Results:

The goal of the ENERGY STAR program is to reduce greenhouse gas and other emissions associated with avoidable energy consumption by transforming the market for energy efficient products, buildings and services, so that more energy efficient options become the norm and persist in the marketplace. As this occurs, EPA looks for additional opportunities to improve efficiency by tightening energy and environmental performance criteria for a given product or service, and revising specifications accordingly.[1]

The below estimates of market penetration for calendar year 2013 provide a key indicator of whether the market is being transformed for a given product, and are used to inform the specification revision process. As noted in highlights, significant market penetration was anticipated for some product categories, and new criteria have already been established or are currently being developed.

ENERGY STAR CY2013 Certified Units Shipped, Corresponding Estimated Market Penetration, and Relevant Specification Updates:

Key and notes	
   	New specification version effective in late 2013 or 2014; market penetration under the new version is likely to be lower.
   	New specification version effective in 2015 or later.

Product Category[2]	2013 Units Shipped (thousands unless otherwise stated)	2013 Estimated Market Penetration	Specification Revisions Affecting Future Market Penetration (Version/Tier Effective Date)
Audio/Video Products – Consumer	12,548	49%	Version 3.0 - May 1, 2013
Audio Separates	*0*	*0%*	
Blu-ray Players	*7,427*	*60%*	
DVD Players	*4,944*	*60%*	
Home Theater	*73*	*5%*	
Mini-systems	*41*	*2%*	
Soundbars	*1,845*	*62%*	
Audio/Video Products – Professional/Commercial – Amplifiers	62	N/A	
Boilers	182	58%	Version 3.0 – October 1, 2014
Residential Gas	*129*	*67%*	

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[1] The approach and criteria for revising ENERGY STAR product specifications are documented in *Specification Development Guiding Principles* (www.energystar.gov/ia/partners/prod_development/downloads/guiding_princip.pdf).
Detailed documentation for the rationale for revising specific products is available online by product category at www.energystar.gov/productdevelopment.
[2] The number of ENERGY STAR certified products shipped and market penetrations are provided for select, notable subcategories of products. The totals and market penetrations for each main product category may be comprised of additional subcategories.

Boilers			
Residential Oil Boilers	*53*	*44%*	
Ceiling Fans			
Ceiling Fan Only	*2,142*	*27%*	
Ceiling Fan with Light Kit	*576*	*6%*	
Light Kit Only	*68*	*3%*	
CAC/ASHP	1,480	24%	
ASHP[3]	*750*	*37%*	
CAC	*730*	*18%*	
Clothes Washers	5,483	66%	
Residential Use	*5,423*	*66%*	Version 7.0 – March 7, 2015
Commercial Use	*60*	*37%*	
Commercial Dishwashers	38	63%	
Commercial Fryers	23	33%	
Commercial Griddles	3	18%	
Commercial Hot Food Holding Cabinets	7	12%	
Commercial Ice Machines	80	45%	
Commercial Ovens	32	73%	Version 2.0 - January 1, 2014
Commercial Refrigerators & Freezers	410	70%	Version 3.0 - October 1, 2014
Commercial Steam Cookers	6	34%	
Computer Servers	168	8%	
Computers	45,688	55%	Version 6.0 - April 28, 2014
Desktop	*8,248*	*25%*	
Notebooks	*36,158*	*74%*	
Small-Scale Servers	*24*	*N/A*	
Thin Clients	*1,044*	*N/A*	
Workstations	*213*	*23%*	
Decorative Light Strings	38,231	25%	
Dehumidifiers	1,622	99%	
Dishwashers[4]	5,687	90%	
Displays	21,917	55%	
Digital Picture Frames	*8*	*0%*	
LCD Monitors	*21,794*	*82%*	
Professional Displays PDP	*114*	*1%*	
Freezers[5]	542	29%	Version 5.0 –

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[3] As percent of heat pump market.
[4] Market penetration for dishwashers includes compact products.
[5] Market penetration for freezers includes compact products.

			September 15, 2014
Furnaces	212	9%	
Residential Gas Furnaces	*212*	*9%*	
Residential Oil Furnaces	*3*	*8%*	
Geothermal Heat Pumps[6]	35	18%	
Imaging Equipment	25,932	81%[7]	Version 2.0 - January 1, 2014
Copiers	*86*	*70%*	
Digital Duplicators	*4*	*N/A*	
Fax Machines	*215*	*7%*	
Mailing Machines	*102*	*N/A*	
Multi-function Devices and Printers	*24,069*	*90%*	
Scanners	*1,457*	*N/A*	
Lamps[8]	357,570	18%	Version 1.0 – September 30, 2014
Compact Fluorescent Lamps (CFL)	*311,957*	*83%*	
Integral LED Lamps	*45,613*	*76%*	
Light Commercial HVAC	268	35%	
Luminaires[9]	18,026	11%	
Indoor	*16,660*	*13%*	
Outdoor	*1,366*	*4%*	
Refrigerators[10]	6,925	74%	Version 5.0 - September 15, 2014
Roof Products	7 billion sq. ft.	33%	
Residential	*1.35 billion sq. ft.*	*28%*	
Commercial[11]	*5.90 billion sq. ft.*	*34%*	
Room Air Cleaners	884	31%	
Room Air Conditioners	4,962	72%	Version 3.0 - October 1, 2013
Set-top Boxes[12]	36,349	89%	Version 4.1 – December 19, 2014
Cable	*13,668*	*98%*	
Satellite	*5,176*	*100%*	
IP	*8,530*	*67%*	
Thin Client/Remote	*8,975*	*98%*	
Telephony	13,481	71%	Version 3.0 – October 1, 2014

[6] Market penetration as a percent of commercial and residential geothermal heat pumps.
[7] The market penetration associated with the total number of imaging equipment units shipped does not include mailing machines, digital duplicators, or scanners.
[8] This includes ENERGY STAR certified lamps as a percentage of all lamps, including incandescent and halogen.
[9] Shipments include solid state lighting luminaires.
[10] Market penetration for refrigerators does not include compact products.
[11] Gallons were converted to square feet for the purpose of estimating market penetration.
[12] Includes shipments to consumers, retailers, and set-top box service providers including both ENERGY STAR partners and non-partners.

Televisions	32,944	84%	
LCD	*31,567*	*87%*	
LCD less than or equal to 23 inches	*1,839*	*64%*	
LCD 24-34 inches	*13,152*	*91%*	
LCD 35-39 inches	*2,615*	*90%*	
LCD 40-44 inches	*3,843*	*88%*	
LCD 45-49 inches	*2,136*	*65%*	
LCD 50-59 inches	*4,860*	*100%*	
LCD greater than or equal to 60 inches	*3,122*	*92%*	
OLED	*0.5*	*6%*	
Plasma	*940*	*47%*	
TV Combination Units	*437*	*17%*	
Uninterruptible Power Supplies	4,733	78%	
Vending Machines	60	25%	
Ventilating Fans[13]	2,252	33%	
Water Coolers	1,573	86%	Version 2.0 - February 1, 2014
Water Heaters - Gas	558	N/A	
Gas Storage	*161*	*4%*	
Gas Tankless	*397*	*N/A*	
Water Heaters - Electric	*43*	*1%*	
Windows, Doors and Skylights	TBD	TBD	Version 6.0 – January 1, 2015 (+1 year for northern zone windows)

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[13] Market penetration for ventilating fans does not include in-line ventilating fans.